

METHODS AND APPARATUS FOR COMPUTING  
VOLUMETRIC PERFUSION

ABSTRACT OF THE DISCLOSURE

A method for computing volumetric perfusion in a spatially stationary organ using a computed tomography (CT) imaging system includes positioning an area detector such that the area detector encompasses a spatially stationary organ within the field of view of the imaging system for all view angles, operating the CT imaging system in a cine mode to acquire a plurality of projection data representative of the tissue dynamics in the spatially stationary organ, processing the projection data, temporally filtering respective signals from volume elements of the reconstructions of the projection data which are representative of the tissue dynamics and computing the volumetric perfusion in the organ using the temporally filtered signals from volume elements.